

DESIGN NARRATIVE:

The Effective Site Area was analyzed as woods in good condition and a target R₁₀ was determined. The Effective Site Area is comprised of the area of the site which will be developed and excludes protected environmental areas which will be preserved. A target rainfall depth treatment (P_e) was determined based on the measured impervious areas and H₂O soil types. The target P_e for this site is 1.20 inches. The target P_e was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods include non-rooftop disconnections (N-2) and dry wells (M-5).

This site contains no environmental features. To protect natural resource areas, it is important to delay release of stormwater runoff from new impervious areas to avoid increasing peak runoff, and to adequately treat the stormwater to avoid damage to sensitive species. The design incorporates larger lots with minimum width driveways in order to create the least possible stormwater runoff, and provided runoff release in multiple locations to maintain several sufficient water courses.

Conceptual treatment has been designed based on preliminary grading, the site topography and the house locations. Driveway areas will be treated by sheet flow areas for non-rooftop disconnection. Non-rooftop disconnection of driveways will provide treatment of the 1.0" quality runoff. Rooftop runoff will be piped to on-site dry wells. Additional ESD volume will be provided in the dry wells. Multiple outfalls are provided to generally release runoff in natural drainage patterns for the site.

Sediment and erosion controls have been designed based on the 2011 Maryland Specifications for Soil Erosion and Sediment Control. Erosion control matting and silt fence will be used to prevent runoff containing unacceptable levels of TSS from leaving the site and entering the adjacent wetlands during the construction. It will be the obligation of the contractor to install, inspect and maintain these practices.

The target P_e for this site is 1.2 inches. All impervious areas are treated for 1.0" (water quality treatment) and 99% of the required ESD volume is being provided. By using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual as amended by Maryland Stormwater Management Act of 2007, full treatment of the target P_e of 1.2 will be achieved.

No Design Manual waivers are anticipated at this time. A Waiver Petition will be required to allow removal of specimen trees.

SEQUENCE OF CONSTRUCTION - INDIVIDUAL HOUSE

- DAY 1: SEWER GRADING PERMIT AND HOLD A PRE-CONSTRUCTION MEETING. STEP DURATION 1 DAY.
- DAY 2: THE CONTRACTOR(S) IS TO IDENTIFY AND MARK ANY HAZARDOUS CONDITIONS THAT MAY EXIST ON-SITE, SUCH AS OVERHEAD POWERLINES, OLD WELLS, GAS LINES, ETC. STEP DURATION 1 DAY.
- DAY 3-4: CLEAR AND GRUB AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SLOPE SILENCERS AND SILT FENCES. STEP DURATION 2 DAYS.
- DAY 4-10: CLEAR AND GRUB REMAINDER OF SITE WITHIN INSTALLED PERIMETER CONTROLS. GRADE SITE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES. STEP DURATION 6 DAYS.
- DAY 11: INSTALL EROSION CONTROL MATTING IN THE DITCHES AND SWALES. STEP DURATION 1 DAY.
- DAY 12-60: CONSTRUCT HOUSE, INSTALL DRIVEWAY AND UTILITIES. SPILL FROM THE TRENCHING OF THE SEWER AREA IS TO BE PLACED ON THE UPRILL SIDE OF THE EXCAVATION. STEP DURATION 48 DAYS.
- DAY 61-65: INSTALL LANDSCAPING, FIVE CRACKS AND STABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. STEP DURATION 5 DAYS.
- DAY 66-68: INSTALL STORMWATER MANAGEMENT MEASURES. NOTES. STEP DURATION 3 DAYS.
- DAY 67-68: UPON APPROVAL OF HOWARD COUNTY SEWER CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. PERMANENTLY STABILIZE AS REQUESTED. STEP DURATION 2 DAYS.

APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION PLANS, SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR RED-LINE REVISION REVIEW STAGE. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

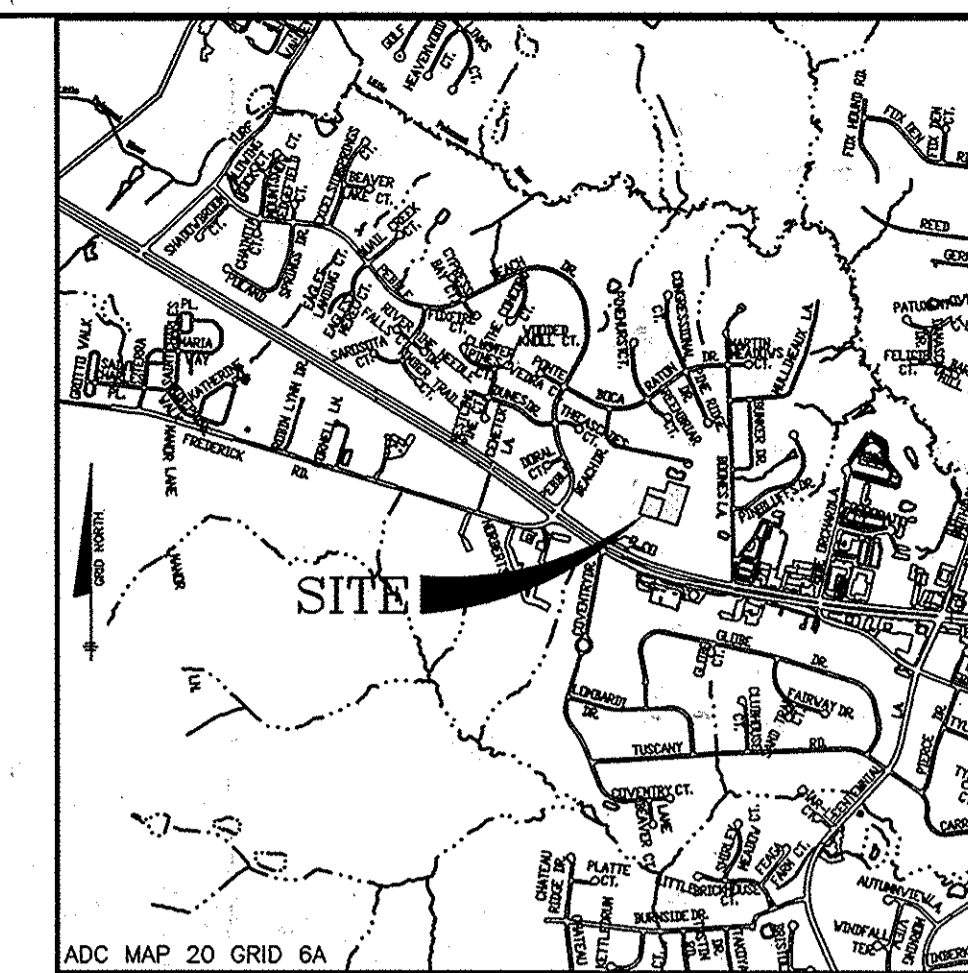
PROJECT BACKGROUND INFORMATION

PRESENT ZONING: R-20
 LOCATION: TAX MAP 24 - GRID 1 - PARCELS 2 AND 758
 APPLICABLE DPZ FILE REFERENCES: NCU-00-02, P-14-149
 DEED REFERENCES: P. 2 (L.1874/F.0170)
 P. 758 (L.8200/F.0625)
 PROPOSED USE OF SITE: RESIDENTIAL (SFD)
 PROPOSED WATER AND SEWER SYSTEMS: PUBLIC WATER & SEWER

SITE DATA ANALYSIS AND TABULATION

1) TOTAL PROJECT AREA.....	3.34 AC.±
2) AREA OF 100-YR. FLOODPLAIN.....	0.00 AC.
3) AREA OF STEEP SLOPES (15% OR GREATER).....	0.00 AC.
4) AREA OF EXISTING FOREST.....	0.00 AC.
5) AREA OF ERODIBLE SOILS.....	0.00 AC.
6) AREA OF WETLANDS (INCLUDING BUFFER).....	0.00 AC.
7) AREA OF STREAM BUFFER (OUTSIDE WETLANDS & BUFFER).....	0.00 AC.
8) NET AREA OF SITE(S).....	3.34 AC.±
9) NUMBER OF LOTS ALLOWED.....	2/AC.
10) NUMBER OF RESIDENTIAL LOTS PROPOSED.....	3
11) AREA OF PLAN SUBMISSION.....	3.34 AC.±
12) APPROXIMATE LIMIT OF DISTURBANCE.....	0.4 AC.±
13) PRESENT ZONING DESIGNATION.....	R-20
14) PROPOSED USES FOR THE SITE & STRUCTURES.....	RESIDENTIAL-SFD
15) MINIMUM LOT SIZE.....	20,000 SF
16) OPEN SPACE REQUIRED (20% OF 3.34 AC).....	0.67 AC.±
17) OPEN SPACE PROVIDED (CREDITED).....	0.00 AC.
18) OPEN SPACE PROVIDED (TOTAL).....	0.00 AC.
19) RECREATIONAL OPEN SPACE REQUIRED.....	N/A
20) RECREATIONAL OPEN SPACE PROVIDED.....	N/A
21) NUMBER OF PARKING SPACES REQUIRED.....	N/A
22) TOTAL NUMBER OF PARKING SPACES PROVIDED.....	N/A
23) BUILDING COVERAGE AREA (IMPERVIOUS).....	0.23 AC.(±7%)
24) TOTAL IMPERVIOUS AREA.....	0.77 AC.(±23%)

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 10-14-15
 DATE: 10-16-15



GENERAL NOTES

1. SUBJECT PROPERTY IS ZONED R-20 PER THE 10-6-2030 COMPREHENSIVE ZONING PLAN.
2. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DATED OCTOBER 7, 2007.
3. PROJECT LIMITS WILL BE BASED ON FIELD RUN BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING INC. DATED FEBRUARY, 2014.
4. EXISTING TOPOGRAPHY FOR THIS PLAN IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY BENCHMARK ENGINEERING INC. IN MARCH, 2014.
5. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANNED COORDINATE SYSTEM.
6. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM, OR THEIR REQUIRED BUFFERS UNLESS OTHERWISE NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING.
7. THERE ARE NO STEEP SLOPES (25% OR GREATER) IN EXCESS 20,000 S.F. ON THIS SITE.
8. THERE IS NO NEED FOR A PRELIMINARY FLOOD STUDY FOR THIS PROJECT.
9. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
10. A NOISE STUDY IS NOT REQUIRED FOR THIS PLAN.
11. THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND THE PLANNED SERVICE AREA. WATER AND SEWER WILL BE PUBLIC.
12. THE FOREST CONSERVATION PLAN FOR THIS PROJECT WILL BE MET VIA PAYMENT OF A FEE-IN-LIEU OF PROMISING REFORESTATION.
13. THE PREVIOUS DPZ FILES FOR THIS SITE ARE: NCU-00-02, WP-14-149.
14. THERE IS NO FLOODPLAIN ON THIS PROJECT OR THE DRAINAGE AREA AT THE STUDY POINT IS LESS THAN 30 ACRES. THERE ARE NO WETLANDS OR STREAMS ON THIS PROPERTY AS INDICATED ON THIS PLAN.
15. THE EXISTING HOUSE AND POOL ON LOT 1 WILL REMAIN. THE EXISTING CHURCH BUILDING ON PROPOSED LOT 3 WILL REMAIN.
16. A LANDSCAPE PLAN WILL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
17. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
18. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
19. A WAIVER PETITION TO REMOVE SPECIMEN TREES WILL BE FILED UNDER SUBSEQUENT PLANS SUBMISSION.
20. ON JUNE 30, 2014 THE PLANNING DIRECTOR APPROVED WAIVER WP-14-149 TO SHARE ACCESS TO HAVE SUFFICIENT PUBLIC ROAD ACCESS COLLECTIVELY TO MEET THE SHARED DRIVEWAY EASEMENT REQUIREMENTS OF THE DESIGN MANUAL (VOLUME III). THE WAIVER WAS GRANTED FOR THE PURPOSE OF BEING ABLE TO SUBDIVIDE PARCELS 2 & 758 INTO LOTS 1, 2 & 3. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - A) NO FURTHER RE-SUBDIVISION OF LOTS 1, 2 & 3 WILL BE ALLOWED UNTIL PUBLIC ROAD FRONTAGE IS OBTAINED TO EITHER ROUTE 40 OR BOONES LANE IN ACCORDANCE WITH SECTION 16.120(C)(2)(I) OF THE SUBDIVISION REGULATIONS.
 - B) WRITTEN CONFIRMATION FROM THE DIVISION OF PUBLIC SERVICE AND ZONING ADMINISTRATION OF DPZ, PRIOR TO THE SUBMISSION OF THE FINAL SUBDIVISION PLAN FOR LOTS 1, 2 & 3, TO ALLOW PARCELS 2 & 758 TO BE REDIVIDED IN SIZE FROM 2.56 TO 2.03 ACRES AND THAT PROPOSED SETBACKS ON NEW LOT 3 MEET THE REQUIREMENTS FOR THE NON-CONFORMING USES AND STRUCTURES.
 - C) APPLICANT MUST PROVIDE A NEW MAINTENANCE AGREEMENT FOR NEW LOTS 1, 2 & 3, AS WELL AS ALL OTHER USERS OF THE 14' WIDE SHARED PRIVATE DRIVEWAY AND BETWEEN LOTS 1, 2 & 3 AND THE EXISTING SHARED DRIVEWAY WITHIN THE 50' WIDE R/W SOUTH OF THE PROPOSED LOTS. THE SHARED DRIVEWAY AGREEMENTS WILL BE RECORDED IN THE LAND RECORDS OF HOWARD COUNTY SIMULTANEOUSLY WITH THE SUBDIVISION PLAN. IF AN AGREEMENT BETWEEN ALL PARTIES CANNOT BE REACHED, THE PORTALS SHALL BE SOLELY RESPONSIBLE FOR THE MAINTENANCE, REPAIR AND ANY REQUIRED RE-PAVING OF THE 14' WIDE PRIVATE ROAD FROM THE NORTHERN LIMITS OF LOT 2 TO THE ROUTE 40 R/W.
 - D) DESIGN MANUAL WAIVERS ARE REQUIRED TO ALLOW THE PRIVATE DRIVEWAY TO REMAIN 14' WIDE AND TO ALLOW THE EXISTING 20' WIDE PRIVATE DRIVEWAY EASEMENT TO REMAIN WITHOUT WIDENING THE EASEMENT TO THE REQUIRED 24' WIDE MINIMUM USE-IN-COMMON DRIVEWAY EASEMENT WIDTH.
 - E) APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED IN ORDER TO OBTAIN A BUILDING PERMIT FOR THE PROPOSED HOUSE ON NEW LOT 2.
 - F) APPLICANT NEEDS TO PROPOSE AND HAVE APPROVED A STREET NAME FOR THE 14' WIDE PRIVATE ROAD. THE APPLICANT SHALL COORDINATE THE PROPOSED STREET NAME WITH ALL CURRENT USERS OF THE PRIVATE ROAD, NAMING THE PRIVATE ROAD WILL MAKE IT EASIER FOR EMERGENCY VEHICLES TO IDENTIFY THE ROAD.

LEGEND

- SOILS CLASSIFICATION: GgB
- SOILS DELINEATION: -460, -478, 999
- EXISTING CONTOURS: -460, -478, 999
- PROPOSED CONTOURS: -460, -478, 999
- EXISTING WOODS LINE: [Symbol]
- PROPOSED WOODS LINE: [Symbol]
- PROPOSED STRUCTURE: [Symbol]
- EXISTING WELL: [Symbol]
- DRY WELL: [Symbol]
- ROOFTOP DISCONNECTION PATH: [Symbol]
- NON-ROOFTOP DISCONNECTION: [Symbol]
- LIMIT OF DISTURBANCE: [Symbol]
- EFFECTIVE SITE AREA: [Symbol]
- DRAINAGE AREA: [Symbol]
- BORING LOCATION: B-1 [Symbol]
- STABILIZED CONSTRUCTION ENTRANCE: [Symbol]
- SILT FENCE: [Symbol]
- EROSION CONTROL MATTING: [Symbol]

SHEET INDEX	
NO.	DESCRIPTION
1	COVER, GRADING, EXISTING CONDITIONS, SEDIMENT CONTROL AND SWM PLAN

BENCHMARK ENGINEERING, INC.
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Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45577, Expiration Date: 06-08-2016.

OWNER PARCEL 2: TROY B. & STEPHANIE R. PORTA 10382 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21042-2128	OWNER PARCEL 758: TSZ PROPERTIES, LLC 10382 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21042-2128	PROJECT: PARCEL 2 AND 758 RESUBDIVISION - LOTS 1 THRU 3	LOCATION: TAX MAP 24, GRID 1, PARCELS 2 AND 758 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: COVER, GRADING, EXISTING CONDITIONS, SEDIMENT CONTROL AND SWM PLAN ENVIRONMENTAL CONCEPT PLAN	DATE: APRIL, 2015 AUGUST, 2015	PROJECT NO.: 2617
DESIGN: JC	DRAFT: EDD	SCALE: 1" = 30'	DRAWING 1 OF 1			

